



Antenna Specification

Antenna Manufacturer Company Name: Wieson Technologies Co., LTD.

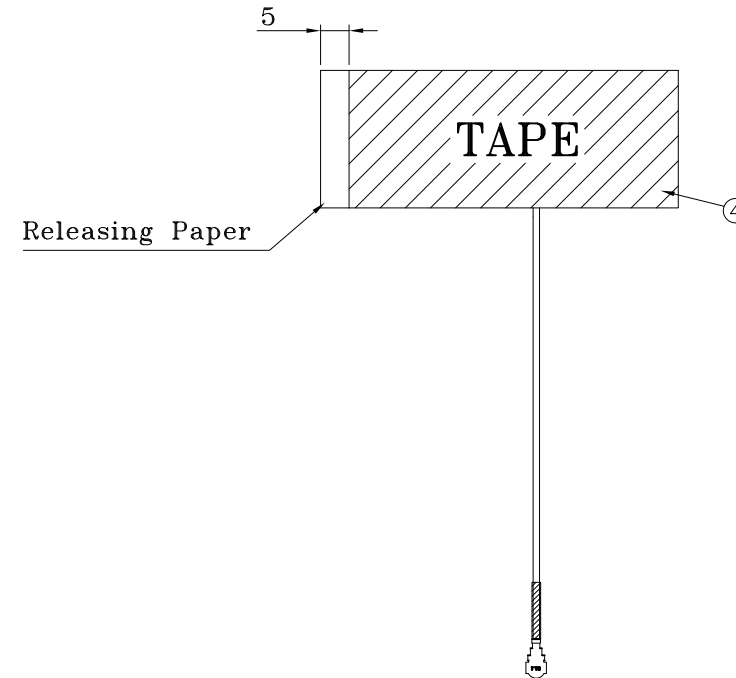
Antenna Manufacturer Company Address: 15F, No.237, Sec.1, Datong Rd., Xizhi Dist., New Taipei City 221006, Taiwan

Antenna Model: ARY196-0232-041-00

Antenna Type: PCB antenna

RoHS Compliant

REV	DATE	DESCRIPTION	ECN NO.	NAME
A1	24.05.31	PROPOSAL		DAVID



⑦				WIESON TECHNOLOGIES CO., LTD		PART NO.:	
⑥				WIESON		ARY196-0232-041-00	
⑤	H.S TUBE	COLOR : GREEN , L : 10mm	1	TITLE: ANTENNA 5			
④	TAPE	G9000 , SIZE: 57.2 X 23.4MM	1				
③	CONNECTOR	MHF I PLUG FOR 1.37MM CABLE , GOLD PLATED	1	DRAWN BY	DAVID(WST)	DRAWING NO.	ARY196-0232-041-00
②	CABLE	1.37MM LOW LOSS COAXIAL CABLE , FEP BLACK JACKET	1	CHECKED BY		DRAWING SIZE	A4
①	PCB	FR-4 , SIZE: 58 X 24.2 X 0.8MM SOLDER MASK COLOR :GREEN	1	APPROVED BY		UNIT	mm
NO.	ITEM	DESCRIPTION	QTY	SORTING NO.	WSC	PAGE	1 OF 1



WIESON TECHNOLOGIES CO.,LTD

BILL OF MATERIAL

Cust.	永洋	TITLE	RF ANTENNA				
Cust.P/N		WIESON P/N	ARY196-0232-041-00				
NO.	DESCRIPTION	SUPPLIER	SUPPLIER PART NO.	UL NO.	AVL	QUANTITY	REMARK
1	FR-4 , SIZE: 58 X 24.2 X 0.8MM SOLDER MASK COLOR :GREEN	/	PCB	/		1PCS	
2	1.37MM LOW LOSS COAXIAL CABLE , FEP BLACK JACKET	/	/CABLE	/		MM	
3	MHF I PLUG FOR 1.37MM CABLE , GOLD PLATED	/	Connector/	/		1PCS	
4	G9000 , SIZE: 57.2 X 23.4MM	/	TAPE/			1PCS	
5	COLOR : GREEN , L : 10mm		H.S TUBE			1PCS	
6							
7							
8							

APPROVED BY: ROX

CHECKD BY: JOSN

DESIGNED BY: REASON

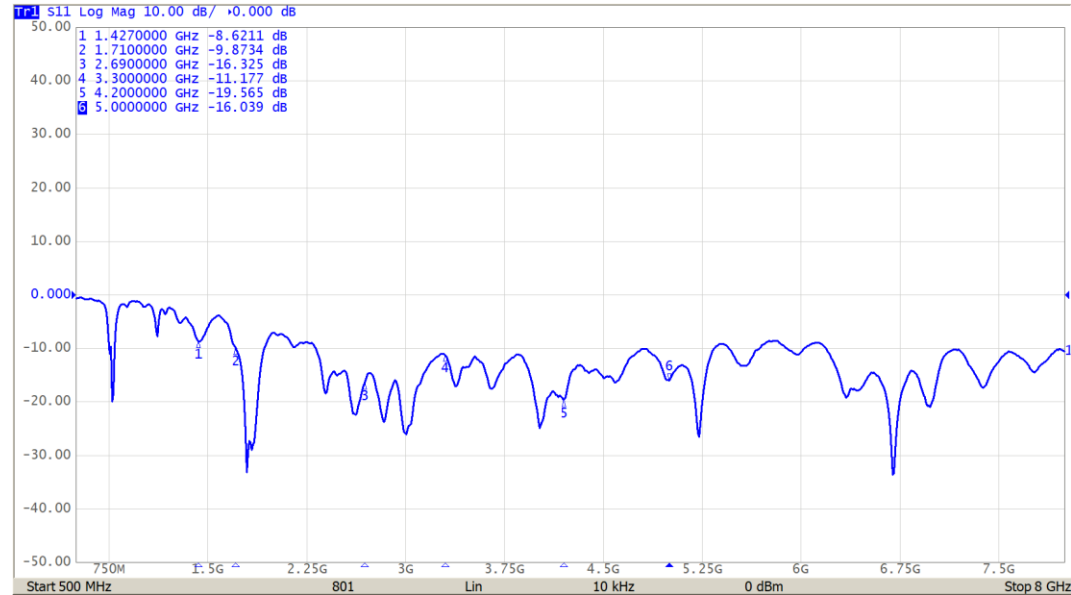
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Antenna specification

Item	Specification	Item	Specification	Item	Specification
Operating Frequency(GHz)	1.427-2.69	Operating Frequency(GHz)	3.3-4.2	Operating Frequency(GHz)	4.4-5
Bandwidth	1263 MHz (Min.)	Bandwidth	900 MHz (Min.)	Bandwidth	600 MHz (Min.)
Return Loss	8 dB (Min.)	Return Loss	10 dB (Min.)	Return Loss	10 dB (Min.)
Polarization	Linear	Polarization	Linear	Polarization	Linear
Azimuth Bandwidth	Omni-directional	Azimuth Bandwidth	Omni-directional	Azimuth Bandwidth	Omni-directional
Impedance	50Ω	Impedance	50Ω	Impedance	50Ω
Material	PCB	Material	PCB	Material	PCB
Connector	MHF I	Connector	MHF I	Connector	MHF I
Cable type	O.D. 1.37 L/L	Cable type	O.D. 1.37 L/L	Cable type	O.D. 1.37 L/L
Maximum Power	1W	Maximum Power	1W	Maximum Power	1W
V.S.W.R	2.3 : 1	V.S.W.R	2 : 1	V.S.W.R	2 : 1
Radiation	Omni directional	Radiation	Omni directional	Radiation	Omni directional
Efficiency	54%(Max.)	Efficiency	67%(Max.)	Efficiency	65%(Max.)
Operating Temperature	-10~60°C	Operating Temperature	-10~60°C	Operating Temperature	-10~60°C
Storage temp	-10~70°C	Storage temp	-10~70°C	Storage temp	-10~70°C

S-Parameter

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Freq(MHz)	1427	1710	2690	3300	4200	5000
S11(dB)	-8.6	-9.9	-16.3	-11.1	-19.6	-16.0

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3D Gain Total

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
1.427	2.3	-3.8	42
1.452	1.2	-3.5	44
1.47	1.3	-3.8	42
1.496	1.8	-3.5	45
1.517	2.0	-4.0	40
1.71	2.0	-3.8	41
1.76	1.4	-4.0	40
1.81	1.6	-3.7	42
1.88	2.0	-3.5	44
1.91	2.1	-3.8	41
1.96	1.2	-3.9	40
2.01	1.6	-4.0	40

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
2.06	1.5	-3.4	45
2.11	1.5	-3.7	42
2.17	1.6	-3.8	41
2.3	1.1	-3.6	44
2.35	0.9	-3.6	44
2.4	1.0	-3.9	41
2.45	0.1	-3.3	47
2.5	0.1	-3.6	44
2.55	0.1	-2.6	54
2.6	0.0	-3.0	51
2.65	0.1	-3.2	48
2.69	0.1	-3.5	45

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3D Gain Total

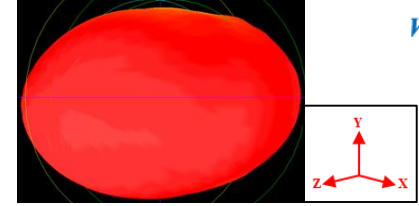
Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
3.3	2.5	-2.7	53
3.4	0.9	-3.1	49
3.5	0.5	-2.9	52
3.6	0.0	-3.0	50
3.7	0.9	-2.9	51
3.8	0.5	-2.6	55
3.9	0.9	-2.3	59
4	0.7	-1.8	67
4.1	1.1	-2.0	63
4.2	1.6	-1.8	66
4.4	2.1	-1.9	65
4.5	4.9	-2.2	60

Freq(GHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
4.6	5.0	-2.1	62
4.7	4.8	-2.1	61
4.8	4.2	-2.3	59
4.9	4.3	-1.9	65
5	5.2	-2.2	61

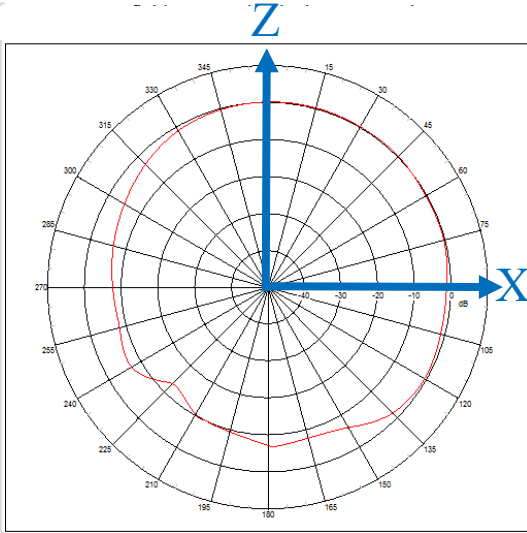
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Antenna Pattern

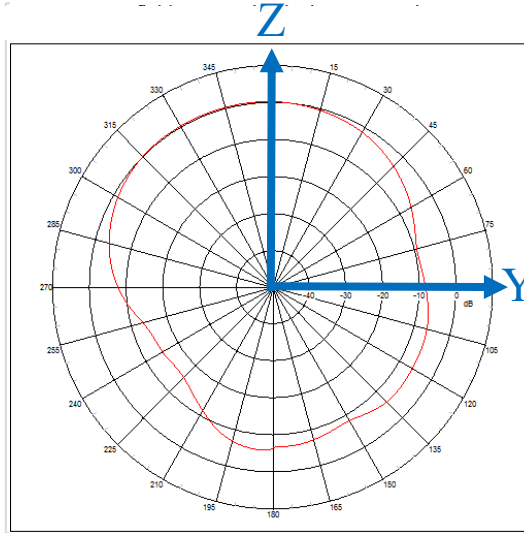
Frequency : 1427MHz



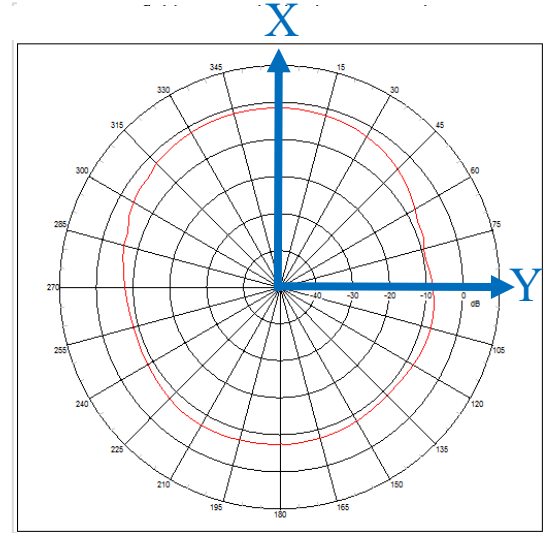
XZ-plane



YZ-plane



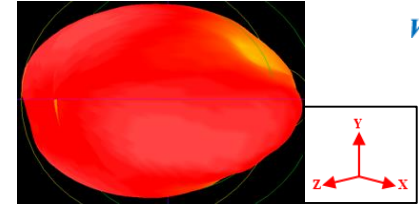
XY-plane



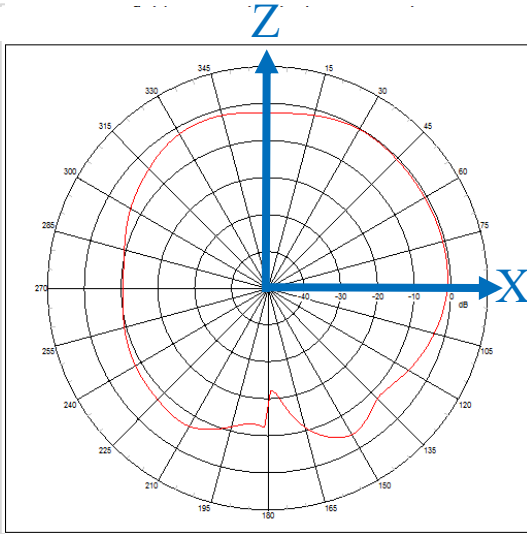
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Antenna Pattern

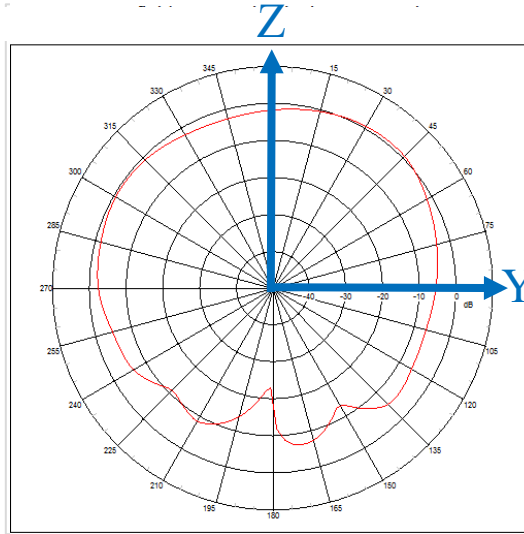
Frequency : 2170MHz



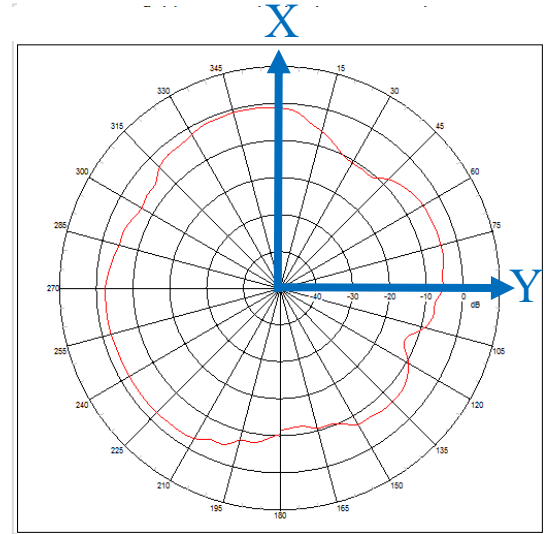
XZ-plane



YZ-plane



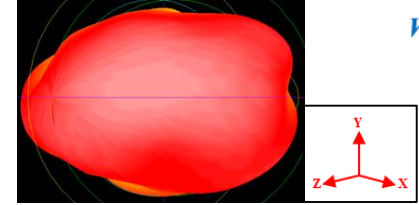
XY-plane



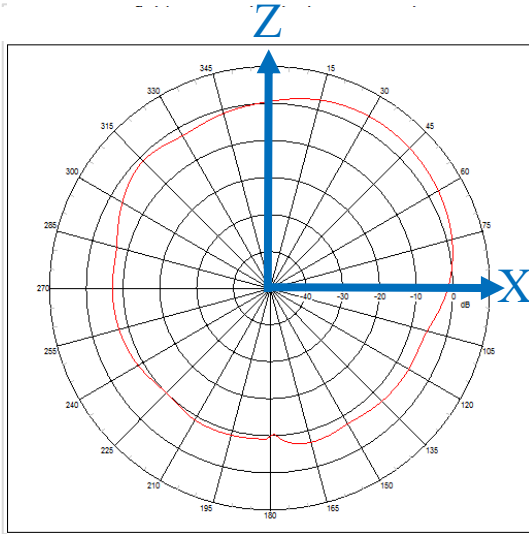
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Frequency : 2690MHz

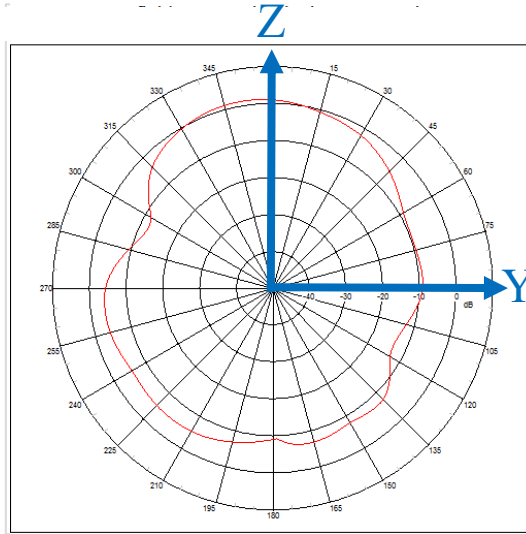
Antenna Pattern



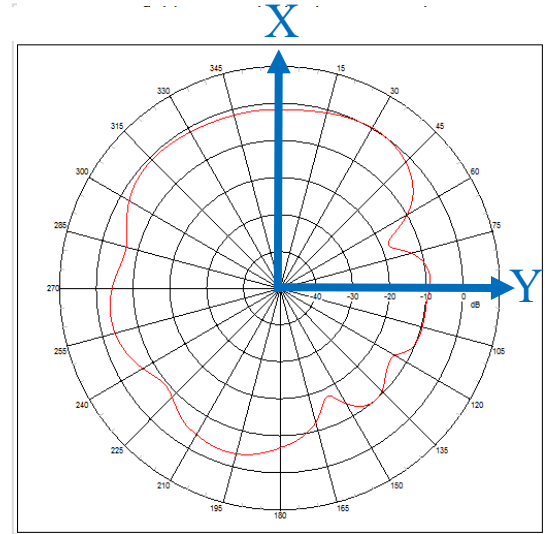
XZ-plane



YZ-plane



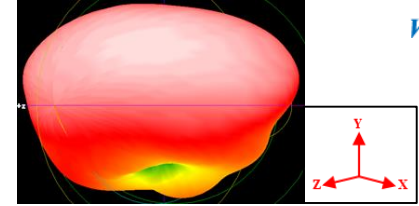
XY-plane



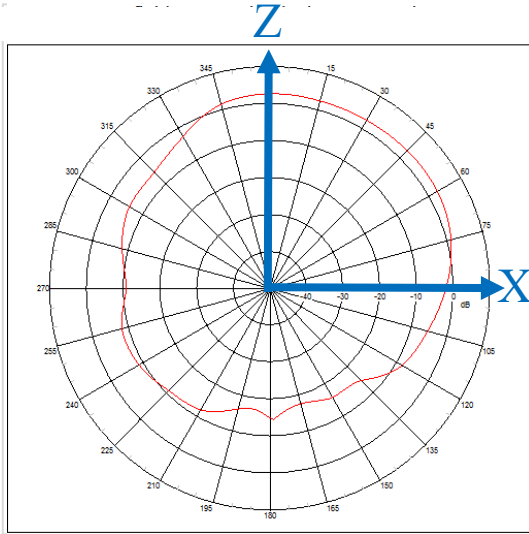
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Frequency : 3300MHz

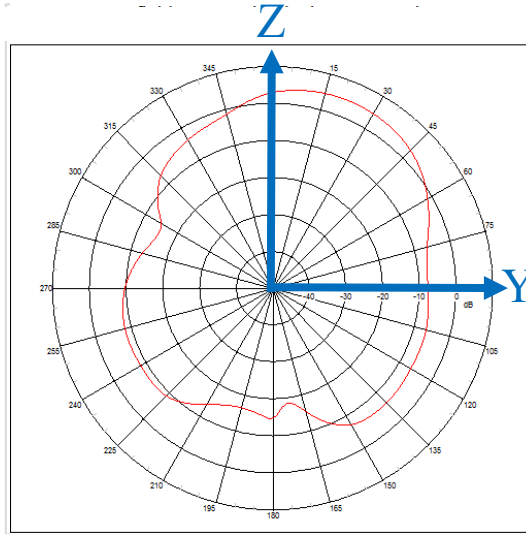
Antenna Pattern



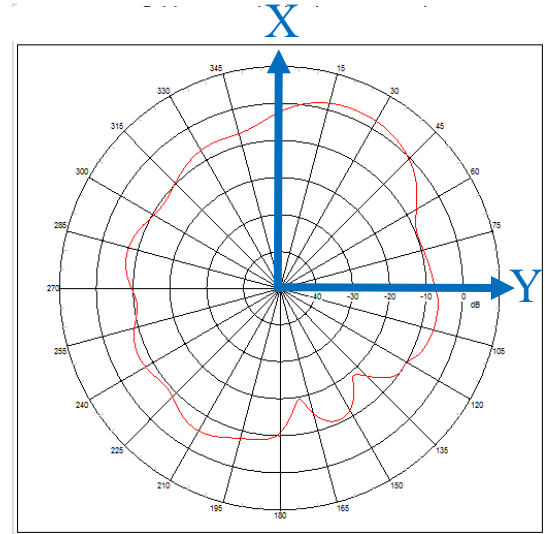
XZ-plane



YZ-plane



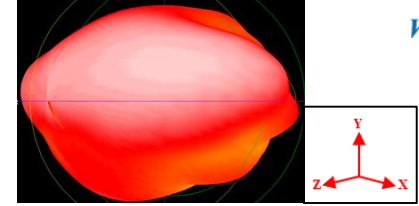
XY-plane



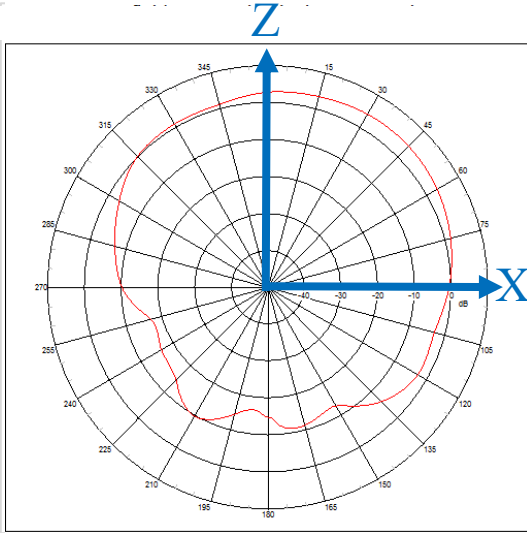
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Antenna Pattern

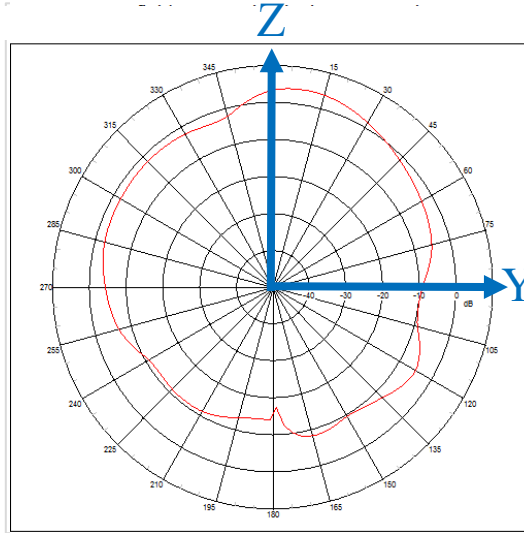
Frequency : 3800MHz



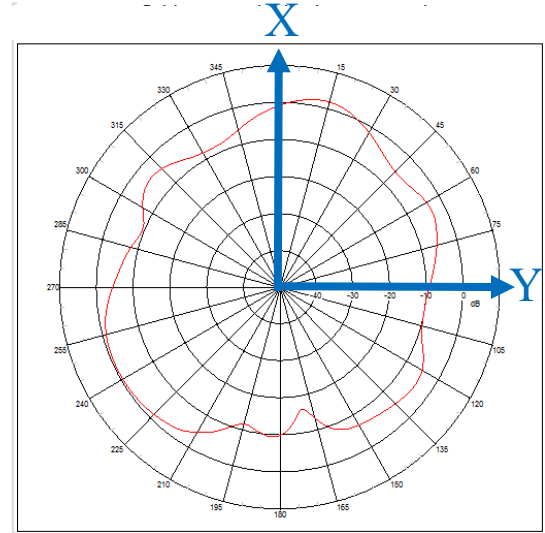
XZ-plane



YZ-plane



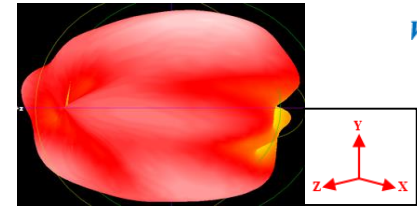
XY-plane



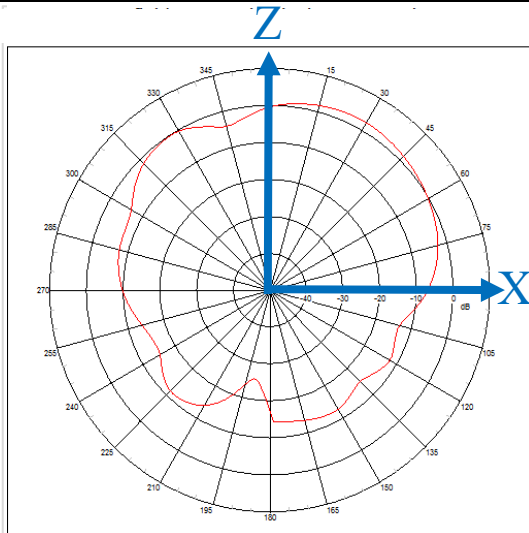
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Antenna Pattern

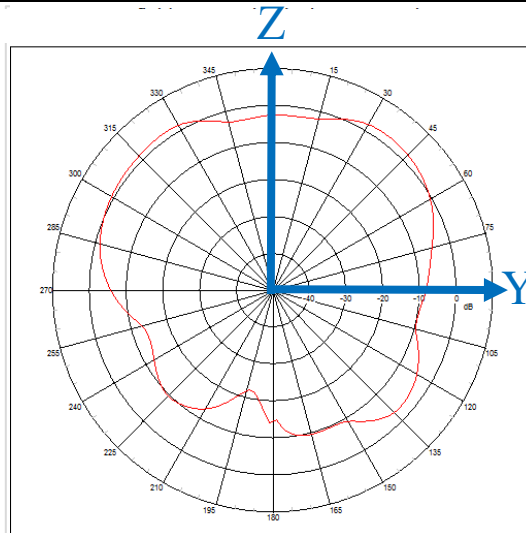
Frequency : 4700MHz



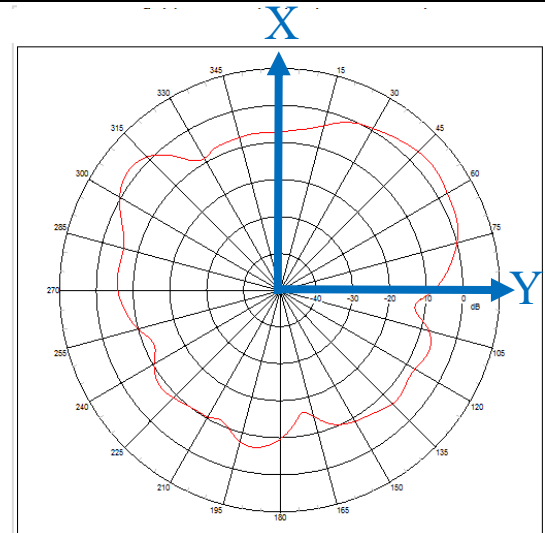
XZ-plane



YZ-plane



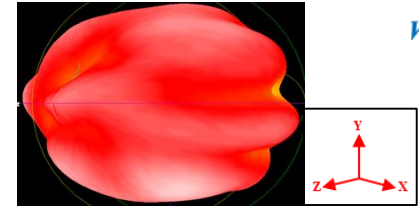
XY-plane



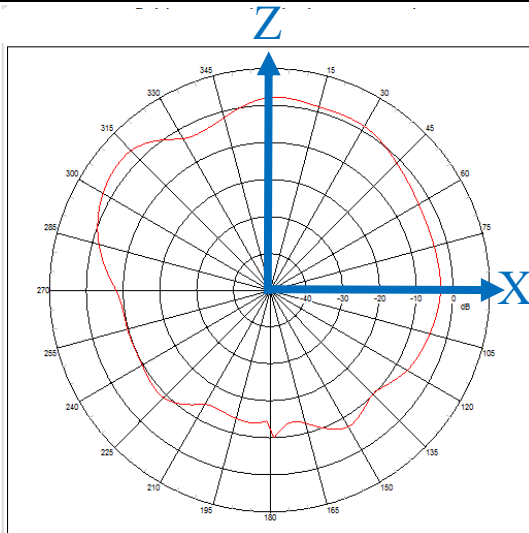
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Frequency : 5000MHz

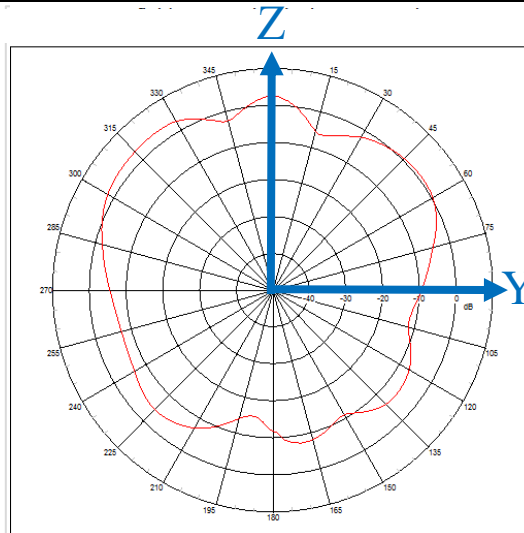
Antenna Pattern



XZ-plane



YZ-plane



XY-plane

